DOCUMENT RESUME

ED 449 601 EC 308 207

TITLE	Use of Assistive Technology Increases among Infants and Toddlers. The TAP Bulletin.
INSTITUTION	RESNA: Association for the Advancement of Rehabilitation Technology, Arlington, VA.
SPONS AGENCY	National Inst. on Disability and Rehabilitation Research (ED/OSERS), Washington, DC.
PUB DATE	1999-02-00
NOTE	11p.; For the update to this bulletin, see EC 308 208.
CONTRACT	H224A50006
AVAILABLE FROM	Association for the Advancement of Rehabilitation Technology (RESNA), 1700 North Moore St., Suite 1540, Arlington, VA 22201-1903; Tel: 703-524-6686 (Voice); Fax: 703-524-6630; Web site: http://www.resna.org (available in alternative formats).
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Evaluative (142)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Accessibility (for Disabled); *Assistive Devices (for Disabled); Data Analysis; *Disabilities; Infants; National Surveys; Toddlers; *Trend Analysis; *Use Studies

ABSTRACT

This brief paper presents an analysis of federal data concerning use of assistive technology (AT) among infants and toddlers. The number of very young children using AT increased dramatically between 1992 and 1995. Of more than 177,000 infants and toddlers receiving services under Part C of the Individuals with Disabilities Education Act, 9,274 received AT devices and services. The variety of AT devices used included adapted battery-operated toys, seating and positioning systems, and alternative access aids for computers. Devices were acquired through Medicaid's Early Periodic Screening, Diagnostic, and Treatment program; through the child's individualized family service plan; or from local and state equipment loan programs. Data also suggest that projects funded under the Technology-Related Assistance for Individuals with Disabilities Act of 1988 have actively encouraged the use of AT by very young children with examples from Kansas and West Virginia. A table details numbers of infants and toddlers receiving both early intervention services and AT devices/services for each state, District of Columbia, Puerto Rico, and territories and for each year from 1992 through 1995. (DB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 449 601

THE TAP BULLETIN

A PUBLICATION OF THE RESNA TECHNICAL ASSISTANCE PROJECT

FEBRUARY 1999

USE OF ASSISTIVE TECHNOLOGY INCREASES AMONG INFANTS & TODDLERS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

EC 308207

EC

The TAP Bulletin

a publication of the RESNA Technical Assistance Project

February 1999

USE OF ASSISTIVE TECHNOLOGY INCREASES AMONG INFANTS AND TODDLERS

The number of very young children using assistive technology (AT) has increased dramatically over the past four years. Currently, more than 177,000 infants and toddlers receive services under Part C (formerly Part H) of the Individuals with Disabilities Education Act (IDEA). Of these, 9,274 children, birth to 2 years old, receive assistive technology devices and services.

The federal government tracks AT services through its annual state data collection activities. In 1992, 5,861 infants and toddlers received AT devices and services. In 1993, the number of children increased to 6,678, and by 1994, the number had risen to 7,352. In 1995, there were 9,274 children receiving AT devices and services. These figures represent a 58% increase in children receiving services and devices during the four-year period. The increase cannot be attributed to a rise in the total Part C population, which increased only 24% during the same time period. (See Table 1.)

The increase may be owing in part to the activities of State Tech Act Projects, which have been active in promoting the use of assistive technology for the very young and have worked to build the capacity of the states to provide assistive technology services under Part C.

Services to infants and toddlers with disabilities were mandated under IDEA in 1986. However, states were allowed to phase in these services over a number of years, with full implementation by 1994. Besides assistive technology devices and services, states provide a variety of other services to children birth to 2 years old, such as special education; physical therapy; nutrition services; audiology; nursing services; speech-language pathology; family training, counseling and home visits; and vision services.

Table 1. Increase in Assistive Technology Devices and Services for Infants and Toddlers

Year	Birth to 2 Population Receiving Any Early Intervention Services	Birth to 2 Population Receiving AT Devices and Services
1992	143,392	5,861
1993	154,065	6,678
1994	165,253	7,352
1995	177,734	9,274

Increase in AT Services to Very Young

Data from 38 states show an increase in the number of infants and toddlers who received services and devices from 1992 to 1995. Ten states show a decrease in the number of children provided devices and services, and 8 states show no change in the number of children receiving AT. Table 2 provides data for each state.

Some states show consistent steady growth in the number of very young children receiving services, such as Kansas, Ohio, Texas, and West Virginia. Other states show a tremendous gain in numbers of children over the last two years, primarily because of phased-in implementation of Part C. Until 1994, some states were still phasing in implementation of services and were not necessarily providing all services delineated under Part C.

However, several cautions must be noted when reviewing these data. Early data collection efforts, particularly in 1992 and 1993, were incomplete because some states had not elected to implement Part C provisions fully. Data have also been subject

EC 308307

to changes in reporting procedures by several states. Some states were not able to gather unduplicated counts of infants and toddlers, particularly in 1992 and 1993. Thus some states have wide fluctuations in their yearly totals, such as in Oregon and New Jersey.

Some states changed what assistive technology devices were actually counted. For example, Arkansas added developmental toys to the list of devices that were counted under the assistive technology category. Other states were not able to report data on assistive technology devices and services and are only now making changes to their data systems, such as New Hampshire and Massachusetts.

Variety of Assistive Technology Devices Used

Infants and toddlers use a variety of assistive technology devices. Battery-operated toys are often adapted with easy-to-access switches that allow a very young child to control the actions of the toy. These adapted toys help the child learn the basic concept of cause and effect. Seating and positioning systems provide support and guide the growth of a child's body. They also allow the child to move about in his or her environment. Computers and alternate access aids, such as large key pads and touch screens, can help children use software that develops communication, perceptual skills, fine motor skills, and many other skills.

Several sources are available for acquiring assistive technology devices for infants and toddlers. Devices may be purchased through Medicaid's early periodic screening, diagnostic, and treatment (EPSDT) program; through the child's individualized family service plan (IFSP) under IDEA; and through private insurance. Parents also may purchase devices directly or use monetary donations from various nonprofit sources. Parents may borrow money from financial loan programs being established around the country to buy assistive technology devices.

In addition, devices may be borrowed from local and state equipment loan programs. Devices are loaned for a period of time and then returned as the child grows out of the device or the device is no longer needed.

Tech Act Projects Encourage Use of AT

Tech Act projects have actively encouraged the use of assistive technology by very young children. They have increased awareness among parents and professionals about assistive technology and they have opened up access to devices and services.

For example, the Assistive Technology for Kansans Project, in collaboration with the Kansas Infant-Toddler Service, established an equipment loan program that serves very young children. Parents can borrow devices for a six-month trial. At the end of that time, families are assisted in finding funding for the equipment they want to continue to use. Or, if no other child is waiting for the equipment, the family may keep it for a longer loan period.

Clinicians are also allowed to borrow devices to conduct child assessments and allow the family to try out a device before purchase. This program has been so popular that the catalog of equipment to loan is now on a web page so borrowers may request devices electronically. The Tech Act project offers regional training on assistive technology subjects. Topics are determined by requests from families and local infant-toddler providers.

The Kansas Tech Act project collaborated with the state's Infant-Toddler Services to establish clear policies and procedures to ensure that very young children in the state receive proper assistive technology evaluations. Approximately 100 infants and toddlers receive evaluations, training, and equipment annually.

The West Virginia Assistive Technology System (WVATS) has concentrated on a number of initiatives that have promoted a greater use of assistive technology in the state for infants and toddlers. The project fostered the development of a pilot equipment loan program, similar to the one in Kansas but on a smaller scale, so that devices can be

borrowed for use and returned when the child no longer needs them or grows out of them. WVATS has worked with the state's early intervention services to develop a state certification for early interventionists that includes competencies in assistive technology as a requirement. This step will ensure that early interventionists in the state have the knowledge and skills needed to use assistive technology with the very young in their programs.

With other state agencies, WVATS cosponsors a yearly hands-on summer camp that features assistive technology. Camp Gizmo, as it is called, is for young children, ages birth to 5, and the team of family members, educators, and clinicians who work with each child. Approximately 50 parents and professionals attend each year. At the camp, team members develop knowledge and strategies that they will be able to use in their home communities. Workshops are conducted on augmentative communication, positioning and mobility, computer adaptations, funding, and advocacy issues. Workshop participants have the opportunity to make low-cost adaptations tailored to their children's needs and take the devices home with them.

Summary

The total number of children receiving assistive technology devices and services nationwide is perhaps the most significant number to study when looking at Part C provision of those devices and services and the impact the law is having on very young children.

Data collection is being refined. States have been challenged in their work to design an interagency data collection system that captures accurate counts of infants and toddlers receiving services. As states refine and standardize their systems, individual state data will become more useful for comparative studies. Also, since a 3-year interval exists between data collection at the state level and reporting efforts at the federal level, outcomes of efforts by Tech Act projects and other state agencies may not be seen in data tables for several years.

Thus these data provide only a starting point to examine state response to the need for assistive technology devices and services of infants and toddlers.

References

U.S. Department of Education. (1995). *Implementation of the Individuals with Disabilities Education Act, seventeenth annual report to Congress.* Washington, DC: Author.

U.S. Department of Education. (1996). *Implementation of the Individuals with Disabilities Education Act, eighteenth annual report to Congress.* Washington, DC: Author.

U.S. Department of Education. (1997). *Implementation of the Individuals with Disabilities Education Act, nineteenth annual report to Congress.* Washington, DC: Author.

U.S. Department of Education. (1998). *Implementation of the Individuals with Disabilities Education Act, twentieth annual report to Congress.* Washington, DC: Author.

Table 2. Infants and Toddlers Receiving Services under IDEA

State	Any Early Intervention Services 1992[a]	AT Devices/ Services 1992	Any Early Intervention Services 1993[a]	AT Devices/ Services 1993	Any Early Intervention Services 1994	AT Devices/ Services 1994	Any Early Intervention Services 1995	AT Devices/ Services 1995
Alabama	988	68	1,194	61	1,302	117	1,328	104
Alaska	600	0	605		390		432	1
Arizona	1,848	14	1,635	43	1,471	17	1,599	15
Arkansas	1,437	60	1,958	135	1,642	307	2,175	263
California	11,821	93	15,465	128	19,471	187	18,119	1,842
Colorado	3,198	1,974	3,325	1,737	3,459	987	3,917	264
Connecticut	1,887	52	1,266	27	1,903	182	2,426	195
Delaware	942	28	983	44	1,277	64	1,388	64
District of Columbia	672	75	1,054		204	106	440	16
Florida	5,082	225	9,460	0	7,115	178	10,771	271
Georgia	2,470		2,892		3,239	592	3,472	191
Hawaii	3,226	66	3,646	110	3,883	121	3,874	52
Idaho	638	0	764	0	869	82	845	94
Illinois	6,417	136	7,513	237	7,937	292	8,029	362
Indiana	3,194	147	4,242	113	4,138	99	4,188	149
Iowa	914	0	969	0	1,006	14	962	12
Kansas	847	139	1,016	157	1,200	159	1,429	267
Kentucky	949	0	978	127	1,334	116	1,637	212
Louisiana	2,106	14	2,383	58	2,633	85	2,245	64
Maine	756	26	756	26	475	28	849	28
Maryland	3,107	269	3,356	2	3,794	5	3,695	8
Massachusetts	12,842	0	7,197		8,114		8,484	
Michigan	3,131	104	3,462	22	3,598	51	4,384	116
Minnesota	2,353		2,436		2,567		2,622	
Mississippi	441	14	214	80	422	24	716	21
Missouri	2,808	7	2,087	7	2,322	96	2,408	291

State	Any Early Intervention Services 1992[a]	AT Devices/ Services 1992	Any Early Intervention Services 1993[a]	AT Devices/ Services 1993	Any Early Intervention Services 1994	AT Devices/ Services 1994	Any Early Intervention Services 1995	AT Devices/ Services 1995
Montana	330	55	402	54	482	50	512	47
Nebraska	667	27	722	89	736	91	725	59
Nevada	645	119	596	22	728	22	841	22
New Hampshire	1,313	0	680		792		1,013	
New Jersey	2,535	0	2,833	410	3,010	300	3,407	59
New Mexico	1,082	66	1,017	174	1,480	109	1,747	140
New York	3,730	421	5,914	339	9,461	168	13,317	248
North Carolina	7,053	2	7,096		5,997	64	4,336	297
North Dakota	233	36	195	43	210	36	265	49
Ohio	11,394	0	13,945	93	16,056	93	15,205	177
Oklahoma	1,216	0	1,460	1	1,687	0	1,767	0
Oregon	1,322	0	1,271	291	1,256	39	1,479	41
Pennsylvania	5,883	73	6,227	204	6,349	100	6,845	95
Puerto Rico	4,716	9	4,325	1	4,183	1	4,793	30
Rhode Island	976	2	672	17	801	49	976	53
South Carolina	1,373	0	1,399	4	1,591	18	1,897	57
South Dakota	260	7	302	22	359	26	376	7
Tennessee	3,301	275	3,437	310	3,156	277	3,156	172
Texas	8,212	708	8,798	903	9,470	1,060	10,078	1,723
Utah	1,391	20	1,494	3	1,560	100	2,064	98
Vermont	256	5	173	5	314	10	341	5
Virginia	4,193	107	2,614	127	2,086	82	2,226	57
Washington	2,330	1	2,506	2	2,242	106	1,961	272
West Virginia	1,208	213	1,509	265	1,538	372	1,664	451
Wisconsin	2,493	199	2,998	168	3,321	251	3,616	183
Wyoming	433	1	427	6	423	6	434	22
American Samoa	15	4	0	3	35	2	40	5
Guam	89	0	104	8	134	10	114	0

State	Any Early Intervention Services 1992[a]	AT Devices/ Services 1992	Any Early Intervention Services 1993[a]	AT Devices/ Services 1993	Any Early Intervention Services 1994	AT Devices/ Services 1994	Any Early Intervention Services 1995	AT Devices/ Services 1995
Northern Marianas	61	0	88	0	31	8	44	3
Virgin Islands	0		0			2	56	
US and Outlying Areas	143,392	5,861	154,065	6,678	165,253	7,352	177,734	9,274
50 States, DC, and PR	138,493	5,857	153,868	6,667	165,053	7,330	177,475	9,266

[a] Counts of infants and toddlers served before 1994-1995 include infants and toddlers served under Chapter 1 Handicapped Program.

This bulletin is available upon request in alternative formats. For information, contact 703/524-6686 (Voice), 703/524-6639 (TDD)

The RESNA Technical Assistance Project, Grant #H224A50006, is an activity funded by the National Institute on Disability and Rehabilitation Research (NIDRR), U.S. Department of Education (ED), under the Technology-Related Assistance for Individuals with Disabilities Act of 1988, as amended. The information contained herein does not necessarily reflect the position or policy of NIDRR/ED or RESNA and no official endorsement of the materials should be inferred.

Produced by the RESNA Technical Assistance Project, 1700 North Moore Street, Suite 1540, Arlington, VA 22209
703/524-6686 (V), 703/524-6639 (TDD), 703/524-6630 (Fax), http://www.resna.org/hometa1.htm, resnata@resna.org